

## **RAW SEQUENCE LISTING**

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Information Center (STIC) no errors detected.**

Application Serial Number: 10/501,611A  
Source: PCT  
Date Processed by STIC: 05/12/2006

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PCT

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DATE: 05/12/2006

PATENT APPLICATION: US/10/501,611A

TIME: 08:56:48

Input Set : A:\-148-1.APP

Output Set: N:\CRF4\05122006\J501611A.raw

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3 <110> APPLICANT: Pavan, William J.
4     Loftus, Stacie K.
5     The Government of the United States of America
6     as represented by The Secretary of the
7     Department of Health and Human Services
9 <120> TITLE OF INVENTION: Alteration of RAB38 Function to Modulate Mammalian
10    Pigmentation
12 <130> FILE REFERENCE: 015280-148100US
14 <140> CURRENT APPLICATION NUMBER: US 10/501,611A
15 <141> CURRENT FILING DATE: 2004-07-14
17 <150> PRIOR APPLICATION NUMBER: US 60/349,929
18 <151> PRIOR FILING DATE: 2002-01-18
20 <150> PRIOR APPLICATION NUMBER: WO PCT/US03/01622
21 <151> PRIOR FILING DATE: 2003-01-17
23 <160> NUMBER OF SEQ ID NOS: 28
25 <170> SOFTWARE: PatentIn Ver. 2.1
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 8
29 <212> TYPE: DNA
30 <213> ORGANISM: Mus musculus
32 <220> FEATURE:
33 <223> OTHER INFORMATION: Rab38 sequence of wildtype allele in C57Bl6/J +/+
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43 <213> ORGANISM: Mus musculus
45 <220> FEATURE:
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47    c57Bl6/J Rab38cht/+ DNA
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66          20          25          30
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80 Met Gln Thr Pro His Lys Glu His Leu Tyr Lys Leu Leu Val Ile Gly
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84          20          25          30
86 Asn Phe
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91 <212> TYPE: PRT
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94 <220> FEATURE:
95 <223> OTHER INFORMATION: mouse RAB38 highly conserved N-terminal region
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128 <212> TYPE: PRT
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131 <220> FEATURE:
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138 Lys Ile Cys Gln Phe Lys Leu Val Leu Leu Gly Glu Ser Ala Val Gly
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147 <212> TYPE: PRT
148 <213> ORGANISM: Homo sapiens
150 <220> FEATURE:
151 <223> OTHER INFORMATION: human N-RAS N-terminal region
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158           20           25
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163 <212> TYPE: DNA
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166 <220> FEATURE:
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171 aggctccgca agaccgcgcg gcctccagga tgcagacacc tcacaaggag cacctgtaca 120
172 agctgctggt gatcggcgac ctgggtgtgg gcaagaccag cattatcaag cgctatgtgc 180
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174 tccactggga cccagagacg gtggtgcgct tgcagctctg ggacattgct ggtcaagaaa 300
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176 atgtcaccag accagccaca tttgaagccg tggcaaagtg gaaaaatgat ttggactcaa 420
177 agttaacgct ccctaattgt aagccagtgt cagtgtttct gttggccaac aaatgtgacc 480
178 aagggaagga tgtgcttatg aacaatggac tcaagatgga ccagttctgc aaggagcatg 540
179 gcttcgtagg atggtttgaa acatcagcca aggaaaacat aaacattgat gaagcctcaa 600
180 gatgcctggt caagcacata cttgcaaatg agtgtgacct cctagagtct atagaaccgg 660
181 acattgtgaa gcccacatct acatcgccca aggttgtcag ctgctctggc tgtgccaaat 720
182 cctagaaggc tcctctgctg gcatatgaca gacagaaccc gtggccctca tgaatcgtgc 780
183 ttcagttttt ctttattacc attttgggta agcgtcagga tagggaagca catgtgacaa 840
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187 taaatcaaca aaggcttctg gtcttcttga gaaggggaat aacagagcaa ggcagagggtc 1080
188 aagctaagtg tggggatttg tcttgccctg gtgtgtcttt gttcagggtat caatttggtc 1140
189 cggggtggtc tgatagggtc attaaataga aaccattcat ggtagaccta aggggtgkct 1200
190 gtgatgtttc tcttcagagt cgtgtgcaca ggcagcctgg gcttttggtg tcaacttgctg 1260
191 tgccctgaat gctggtttta ctgaaaactg tatggaaaga tctgctccct gtatgtgcct 1320
192 ttctttcagc ttctctgac tcaagctgca ggactcttct gtatgtggaa gatataattat 1380
193 atataatttt cacaagtgaa aaataaaaca ttaaaaatgc tgtttccctg tttctgata 1439
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197 <211> LENGTH: 291
198 <212> TYPE: DNA

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199 <213> ORGANISM: Homo sapiens
201 <220> FEATURE:
202 <223> OTHER INFORMATION: Rab38 exon 1 and surrounding intron sequence
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206 aggctccgca agaccgcgag gcctccagga tgcagacacc tcacaaggag cacctgtaca 120
207 agctgctggt gatcggcgac ctgggtgtgg gcaagaccag cattatcaag cgctatgtgc 180
208 accaaaactt ctctcgcac taccgggcca ccattggtgt ggacttcgag ctgaagggtgc 240
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212 <210> SEQ ID NO: 11
213 <211> LENGTH: 281
214 <212> TYPE: DNA
215 <213> ORGANISM: Homo sapiens
217 <220> FEATURE:
218 <223> OTHER INFORMATION: Rab38 exon 2
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221 gtcaagaaag atttggaac atgacaagag tttattaccg ggaagctatg ggggcattta 60
222 ttgtttttga tgtcaccaga ccagccacat ttgaagccgt ggcaaagtgg aaaaatgatt 120
223 tggactcaaa gttaacgctc cctaattggt agccagtgtc agtggttctg ttggccaaca 180
224 aatgtgacca agggaaggat gtgcttatga acaatggact caagatggac cagttctgca 240
225 aggagcatgg ctctgtagga tggtttgaaa catcagccaa g 281
228 <210> SEQ ID NO: 12
229 <211> LENGTH: 868
230 <212> TYPE: DNA
231 <213> ORGANISM: Homo sapiens
233 <220> FEATURE:
234 <223> OTHER INFORMATION: Rab38 exon 3 and surrounding intron sequence
236 <400> SEQUENCE: 12
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238 gtgtgacctc ctagagtcta tagaaccgga cattgtgaag ccccatctca catcgcccaa 120
239 ggttgtcagc tgctctggct gtgccaaatc ctagaaggct cctctgctgg catatgacag 180
240 acagaacccg tggccctcat gaatcgtgct tcagtttttc cttattacca ttttgggtaa 240
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244 gacacagaca gccctaatat ttgttccttt aaatcaacaa aggtttctgg tcttcttgag 480
245 aagggggaata acagagcaag gcagagggtc agctaagtgt ggggatttgt cttgccctgg 540
246 tgtgtctttg ttcaggtatc aatttgttcc cgggtggtct gatagggtca ttaaatagaa 600
247 accattcatg gtagacctaa ggggtgkctg tgatgtttct cttcagagtc gtgtgcacag 660
248 gcagcctggg cttttgttgt cacttgctgt gccctgaatg ctggtttaac tgaaaactgt 720
249 atggaaagat ctgctccctg tatgtgcctt tctttcagct tcctctgact caagctgcag 780
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257 <213> ORGANISM: Artificial Sequence
259 <220> FEATURE:
260 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic TYRP15'T3F DNA

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269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic TYRP15'T7R DNA
274 <400> SEQUENCE: 14
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278 <210> SEQ ID NO: 15
279 <211> LENGTH: 47
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283 <220> FEATURE:
284 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic MLSN R T7 DNA
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290 <210> SEQ ID NO: 16
291 <211> LENGTH: 44
292 <212> TYPE: DNA
293 <213> ORGANISM: Artificial Sequence
295 <220> FEATURE:
296 <223> OTHER INFORMATION: Description of Artificial Sequence:synthetic MLSN FT3 DNA
298 <400> SEQUENCE: 16
299 gcgcgaatta accctcacta aagggaagct tccggactct ctac 44
302 <210> SEQ ID NO: 17
303 <211> LENGTH: 21
304 <212> TYPE: DNA
305 <213> ORGANISM: Artificial Sequence
307 <220> FEATURE:
308 <223> OTHER INFORMATION: Description of Artificial Sequence:PCR
309 amplification primer Rab38 Ex1F
311 <400> SEQUENCE: 17
312 taggaaggag gattaaaccc g 21
315 <210> SEQ ID NO: 18
316 <211> LENGTH: 21
317 <212> TYPE: DNA
318 <213> ORGANISM: Artificial Sequence
320 <220> FEATURE:
321 <223> OTHER INFORMATION: Description of Artificial Sequence:PCR
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328 <210> SEQ ID NO: 19
329 <211> LENGTH: 26
330 <212> TYPE: DNA
331 <213> ORGANISM: Artificial Sequence
333 <220> FEATURE:

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**VERIFICATION SUMMARY**

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